17

- applying a reinforcing material to the UV radiation curable resin after the UV radiation curable resin is formed on the first surface of the rigid substrate in a manner such that the UV radiation curable resin is disposed between the reinforcing material and the first surface of the rigid substrate and the reinforcing material is partially embedded in the UV radiation curable resin such that an upper surface of the reinforcing material stands proud of the UV radiation curable resin;
- curing the UV radiation curable resin to thereby adhere 10 said reinforcing material to the rigid substrate; and
- wherein the steps are performed in a continuous automated process.
- 14. The method of claim 13 wherein the rigid substrate is constructed from fibre reinforced cement.
- 15. The method of claim 13, wherein the rigid substrate is a cellulose fibre reinforced cementitious article.
- 16. The method of claim 13, wherein the radiation curable resin is provided in a quantity sufficient to at least partially embed the reinforcing material therein.
- 17. The method of claim 13, wherein the radiation curable resin covers the entire first face of the rigid substrate.
- 18. The method of claim 13, wherein in the radiation curable resin is provided over a portion of the first face, said portion being sufficient to provide adherent contact with the reinforcing materials.
- 19. The method of claim 13, wherein prior to applying the reinforcing material, the radiation curable resin is at least partially cured.
- 20. The method of claim 13, wherein prior to applying the reinforcing material, the radiation curable resin is at least partially cured to achieve a predetermined tackiness in the resin.
- 21. The method of claim 13, wherein the radiation curable resin is fully cured prior to addition of the reinforced material.
- 22. The method of claim 13 further comprising applying one or more further coatings of radiation curable material to cover the reinforcing material.

18

- 23. The method of claim 13, wherein the radiation curable resin is applied as a series of coatings with or without partial curing there between each coating.
- 24. The method of claim 23, wherein the one or more further coatings of radiation curable resin are fully or partially cured in combination with mechanical keying with surface scuffing prior to application of another resin coat.
- 25. The method of claim 23, wherein the steps of applying are to both faces of the rigid substrate such that a layer of reinforcing material is provided and adhered to both the first face and a second face of the rigid substrate.
- **26**. The method of claim **13**, wherein the radiation curable resin is a sealer.
- **27**. A method of manufacturing a reinforced building element including the steps of:
  - combining a reinforcing material with an ultraviolet (UV) radiation curable resin, the quantity of resin being sufficient to adhere the reinforcing material to a rigid cured cementitious substrate;
  - applying the combined reinforcing material and resin to a first face of the rigid cured substrate in a manner such that an upper surface of the reinforcing material stands proud of the UV radiation curable resin and the resin is disposed between the reinforcing material and the first face of the rigid cured substrate;
  - curing the resin to thereby adhere said reinforcing material to the rigid cured substrate; and
  - applying an outer layer of UV radiation curable resin to the reinforcing material, said outer layer of UV radiation curable resin encapsulate the upper surface of the UV radiation curable resin combined with the reinforcing material.
- 28. The method of claim 27, wherein the rigid substrate is constructed from fibre reinforced cement.
- **29**. The method of claim **27**, wherein the rigid substrate is a cellulose fibre reinforced cementitious article.

\* \* \* \* \*